STANDARDS CHANGES CATALOG (SCC)

SCC NUMBER: SCC #119

CHANGE PROPOSAL TITLE: **Clarification of stream discriminator for N-layer pass through**

ORIGINATOR and ADDRESS: Greg Smith
ICI
8200 Greensboro Drive, Suite 800
McLean, VA 22102

ORIGINATOR'S INTERNAL NUMBER: CNR_WG-023, Revision R2

AFFECTED DOCUMENT: MIL-STD-2045-47001C

PRECEDENCE: Routine

RECOMMENDATIONS:

RECORD OF PROCESSING:

DATE:	ACTION:
15 Jan 2002	Proposal
16 Jan 02	Work Item
2 May 2002	R0
12 August 2002	R1
24 Sep 02	Draft
24 Sep 02	Approved

1. STATEMENT OF THE PROBLEM:
In C.3.5, the 2nd paragraph stipulates that the recipient shall use the source IP address and the serial number as the stream discriminator in order to distinguish among multiple data streams. This works when information is encapsulated in IP datagrams, but does not address how reassembly shall occur when using N-layer pass through (no IP). A method to uniquely identify the stream should be explicitly stated for the N-layer pass through case.

2. PROBLEM ANALYSIS:

S/R with N-layer pass through will not work in an operational scenario with concurrent messaging. The discussion in section C.3.5 "Destination device procedures (reassembly)" establishes a unique stream discriminator only when using N-layer pass through transmission.

MIL-STD-2045-47001C section C.3.5 second paragraph discusses the S/R stream discriminator as:
"The recipient shall accumulate segments of a data transfer with the same serial number from the same source IP address and reassemble that data transfer when all segments have been successfully received, using segment numbers to indicate segment position relative to the whole data transfer."

3. PROPOSED SOLUTION:
Eliminate the dependency in section C.3.5 "Destination device procedures (reassembly)".

Reword MIL-STD-2045-47001C section C.3.5 second paragraph as:
"The recipient shall accumulate segments of a data transfer with the same serial number from the same source ~~IP~~ address and reassemble that data transfer when all segments have been successfully received, using segment numbers to indicate segment position relative to the whole data transfer. **On N-layer pass through networks, it is the serial number and source data-link address which establish each unique data stream; on IP networks, it is the serial number and source IP address which establish each unique data stream."**

4. ALTERNATIVE SOLUTIONS: None

5. SYSTEM CHANGES REQUIRED: Unknown

6. CONFIGURATION ITEM DOCUMENTATION CHANGES: MIL-STD-2045-47001C

7. IMPACT ON INTEROPERABILITY: None

8. IMPACT ON RELATED DOCUMENTS: None

9. IMPLEMENTATION DATES: To Be Determined

10. OTHER CONSIDERATIONS: None

11. REFERENCES: None
12. TRs ADDRESSED IN THIS ICP: None